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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/529,330

Applicant(s)

JATSCHKA, THOMAS

Examiner

DANIEL NOBILE

Art Unit

4125

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 March 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 10-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 10-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 March 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-85/86)
- Paper No(s)/Mail Date 3/24/2005: 6/22/2005
- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date: _____
- 5) ☐ Notice of Inventor's Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claim Objections

1. Claim 20 is objected to because of the following informalities: the element "the short-range radio standard" has no antecedent basis. Although claim 20 is dependent on claim 13, it appears to be dependent on claim 19 and will be examined as such. Appropriate correction is required.

Specification

2. The disclosure is objected to because of the following informalities: claims that are now cancelled are referenced within the body of the disclosure making the disclosure difficult to understand (example: para. [0002] references cancelled claims "claim 1", "claim 8" and "claim 9"). Claim numbers should not be present in the specification since such numbers are subject to change during prosecution. Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 10-12 and 21-22 are rejected under 35 U.S.C. 102(b) as being anticipated by Cotton, U.S. Patent No. 6148205 [Cotton].

5. As to claim 10:

Cotton teaches a method of logging (col. 2, line 21; "secure registration of a device") in a terminal (col. 2, line 31-32; Fig. 1 [104]; "access device ... phones") at an access point (col. 2, line 31; Fig. 1 [102]; "base station") of a local communication network (col. 2, line 21-22; "in-home wireless network"), the access point having a first radio transmitting (col. 2, line 59; Fig. 2 [216]; "RF encoder") and receiving unit (col. 2, line 60; Fig. 2 [218]; "RF decoder") operating at a first transmitting power (col. 2, line 23; "transmitting high RF power") for establishing communication between the terminal and the local communication network, the method comprising: detecting the terminal by the access point (col. 5, line 18; Fig. 6 [621]; "request for registration message"); and reducing the first transmitting power of the first radio transmitting and receiving unit (col. 5, line 2-3; Fig. 6 [602], [606], [608]; "base station transitions into registration state wherein transmitted RF signal power level is reduced from the operational state") such that the communication between the terminal and the local communication network is enabled exclusively within a near field of the access point (col. 2, line 33-36; Fig. 1 [102], [104]; "for access device to register it must be placed next to the base station"), the near field having a smaller area than a standard enabling area defined by all locations enabling the communication between the terminal and the local communication network when the terminal is present at the locations and the first radio transmitting and receiving unit is operating at the first non-reduced transmitting power

(col. 5, line 37-40; Fig. 1 [102], [106]; "other access device not register because it is out of range of the base station").

6. As to claim 11:

Cotton teaches the method according to claim 10 (as discussed above) and further teaches wherein the terminal is a mobile terminal (col. 2, line 32; Fig. 1 [104], [106]; "phones").

7. As to claim 12:

Cotton teaches the method according to claim 10 (as discussed above) further comprising: sending a signal to the terminal (col. 5 line 30; Fig. 7 [712]; "registration response") after detecting the terminal by the access point and before reducing the first transmitting power of the first radio transmitting and receiving unit; and initiating a reduction of a second transmission power of a second radio transmitting and receiving unit of the access point by the terminal (col. 5 line 33-37; Fig. 7 [716]; "access device changes states to registration state ... where the RF power level is reduced") after receiving the signal such that a communication between the terminal and the local communication network is enabled only within a near field of the terminal (col. 5 line 37; "only devices next to each other will register").

8. As to claim 21:

Cotton teaches an access point (col. 2, line 31; Fig. 1 [102]; "base station") of a local communication network (col. 2, line 21-22; "in-home wireless network") for logging in a terminal (col. 2, line 31-32; Fig. 1. [104]; "access device ... phones") at the access point, comprising: a first radio transmitting (col. 2, line 59; Fig. 2 [216]; "RF encoder", therefore transmitter) and receiving unit (col. 2, line 60; Fig. 2 [218]; "RF decoder") operating at a first transmitting power (col. 2, line 23; "transmitting high RF power") for establishing communication between the terminal and the local communication network, wherein the access point is configured to: detect the terminal (col. 5, line 18; Fig. 6 [621]; "request for registration message"); and reduce the first transmitting power of the first radio transmitting and receiving unit (col. 5, line 2-3; Fig. 6 [602], [606], [608]; "base station transitions into registration state wherein transmitted RF signal power level is reduced from the operational state") such that the communication between the terminal and the local communication network is enabled exclusively within a near field of the access point (col. 2, line 33-36; Fig. 1 [102], [104]; "for access device to register it must be placed next to the base station), the near field having a smaller area than a standard enabling area defined by all locations enabling the communication between the terminal and the local communication network when the terminal is present at the locations and the first radio transmitting and receiving unit is operating at the first non-reduced transmitting power (col. 5, line 37-40; Fig. 1 [102], [106]; "other access device not register because it is out of range of the base station").

9. As to claim 22:

Cotton teaches a terminal (col. 2, line 31-32; Fig. 1. [104]; "access device ... phones") configured to be logged in (col. 2, line 21; "secure registration of a device") at an access point (col. 2, line 31; Fig. 1 [102]; "base station") of a local communication network (col. 2, line 21-22; "in-home wireless network"), the access point comprising a first and a second radio transmitting (col. 2, line 59; Fig. 2 [216]; "RF encoder") and receiving unit (col. 2, line 60; Fig. 2 [218]; "RF decoder") operating at a first respectively second transmitting power for establishing communication between the terminal and the local communication network (col. 2, line 23; "transmitting high RF power"), the terminal comprising a signaling device for transmitting a trigger signal to the second radio transmitting and receiving unit (col. 4, line 47-50; Fig. 5 [504], [506]; "controller connected to load that can change transmit RF power level"), the trigger signal initiating a reduction of the second transmission power (col. 4, line 47-50; Fig. 5 [504], [506]; "reducing RF power level during registration"), wherein the access point is configured to: detect the terminal (col. 5, line 18; Fig. 6 [621]; "request for registration message"); and reduce the first transmitting power of the first radio transmitting and receiving unit (col. 5, line 2-3; Fig. 6 [602], [606], [608]; "base station transitions into registration state wherein transmitted RF signal power level is reduced from the operational state") such that the communication between the terminal and the local communication network is enabled exclusively within a near field of the access point (col. 2, line 33-36; Fig. 1 [102], [104]; "for access device to register it must be placed next to the base station), the near field having a smaller area than a standard enabling area defined by all locations enabling the communication between the terminal and the local

communication network when the terminal is present at the locations and the first radio transmitting and receiving unit is operating at the first non-reduced transmitting power(col. 5, line 37-40; Fig. 1 [102], [106]; "other access device not register because it is out of range of the base station").

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 13-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cotton, U.S. Patent No. 6148205 [Cotton] in view of IEEE Standard 802.15.1-2002 [IEEE-802.15].

12. As to claim 13:

- a. Cotton teaches the method according to claim 12 (as discussed above).
- b. Cotton does not teach wherein the signal includes a first message comprising a signal receiving level, the signal receiving level being higher than a signal receiving level actually measured by the access point.
- c. IEEE-802.15 does teach wherein the signal includes a first message comprising a signal receiving level (section 7.3; "power control optimizes output power

with LMP commands ... done by measuring RSSI and reporting back if power should be increased or decreased"; section 9.3.18; Sequence 41 [LMP_decr_power_req], therefore power control message based on RSSI level), the signal receiving level being higher than a signal receiving level actually measured by the access point (section 7.4.7; Figure 9; "RSSI compares received power with two threshold values ... determine whether transmitter on other side should increase or decrease output power level", therefore RSSI is measured and the message can deliberately send a message based on a higher RSSI value).

d. At the time the invention was made, it would have been obvious to a person having ordinary skill in the art to have incorporated IEEE-802.15 power control signaling into Cotton's terminal login method. The motivation to do so is provided by IEEE-802.15 (section 7.4.7). Power control based on RSSI is part of the Bluetooth standard. Using Bluetooth power control method simplifies system design and has the benefits of using known industry standards to implement this function and allows this power control method to interact with Bluetooth compliant devices and systems.

13. As to claim 14:

a. Cotton in view of IEEE-802.15 teaches the method according to claim 13 (as discussed above).

b. Cotton in view of IEEE-802.15 does not teach wherein the signal receiving level actually measured by the access point is a Received Signal Strength Indicator (RSSI) value.

c. IEEE-802.15 does teach wherein the signal receiving level actually measured by the access point is a Received Signal Strength Indicator (RSSI) value (section 7.4.7; "power control link ... RSSI makes this possible").

d. At the time the invention was made, it would have been obvious to a person having ordinary skill in the art to have incorporated IEEE-802.15 RSSI based power control into Cotton's terminal login method. The motivation to do so is provided by IEEE-802.15 (section 7.3). Power control is required for transmissions within the network and RSSI is part of the control feedback loop that allows one device to signal another to increase or decrease its transmitted output power.

14. As to claim 15:

a. Cotton teaches the method according to claim 10 (as discussed above) and further teaches user to move the terminal into the near field of the access point (col. 2 line 34-37; "device is moved close to base station and registration occurs").

b. Cotton does not teach wherein the signal includes a second message comprising an instruction.

c. IEEE-802.15 does teach wherein the signal includes a second message comprising an instruction (section 9.1; "LMP messages are used for link setup, security and control").

d. At the time the invention was made, it would have been obvious to a person having ordinary skill in the art to have incorporated IEEE-802.15 link manager signaling into Cotton's terminal login method. The motivation to do so is provided by IEEE-

802.15 (Chapter 9). Link management allows for control of the physical link between user and base station which includes power control. Using Bluetooth LM protocols as a second message allows for a second command to reside in the same system functional area as power control which simplifies system design. It also has the benefit of using a known industry standard to implement this function and allows this method to interact with Bluetooth compliant devices and systems.

15. As to claim 16:

a. Cotton in view of IEEE-802.15 teaches the method according to claim 15 (as discussed above).

b. Cotton in view of IEEE-802.15 does not teach wherein the second message is re-transmitted to the terminal if the terminal has not been moved into the near field of the access point within a specified time period after receiving the second message by the terminal.

c. IEEE-802.15 does teach wherein the second message is re-transmitted to the terminal if the terminal has not been moved into the near field of the access point within a specified time period after receiving the second message by the terminal (section 8.5.3 ARQ Scheme; "packets are retransmitted until acknowledgement ... is returned ... or timeout is exceeded").

d. At the time the invention was made, it would have been obvious to a person having ordinary skill in the art to have incorporated IEEE-802.15 automatic repeat request into Cotton's terminal login method. The motivation to do so is that ARQ is

commonly used in data communications and allows for an efficient retransmission scheme. It also has the benefit of using a known industry standard to implement this function and allows this method to interact with Bluetooth compliant devices and systems.

16. As to claim 17:

a. Cotton in view of IEEE-802.15 teaches the method according to claim 16 (as discussed above).

b. Cotton in view of IEEE-802.15 further teaches wherein the reduced first transmission power is increased at least temporarily to a level corresponding to the non-reduced transmission power (col. 5, line 1; Fig. 6 [608]; "registration state ... reduced RF power"; col. 5, lines 10-11; Fig. 6 [606]; "base station changes to operation state"; with non response of terminal, base station reverts to operational transmission power to increase coverage range for retry).

17. As to claim 18:

a. Cotton in view of IEEE-802.15 teaches the method according to claim 16 (as discussed above).

b. Cotton in view of IEEE-802.15 does not teach wherein the second message is repeatedly re-transmitted.

c. IEEE-802.15 does teach wherein the second message is repeatedly re-transmitted (section 8.5.3 ARQ Scheme; "packets are retransmitted until acknowledgement ... is returned ... or timeout is exceeded").

d. At the time the invention was made, it would have been obvious to a person having ordinary skill in the art to have incorporated IEEE-802.15 automatic repeat request (ARQ) into Cotton's terminal login method. The motivation to do so is the same as in the claim 16 rejection.

18. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Cotton, U.S. Patent No. 6148205 [Cotton] in view of Larsson et al., U.S. Patent No. 6697638 [Larsson].

19. As to claim 19:

a. Cotton teaches the method according to claim 12 (as discussed above).

b. Cotton does not teach wherein the first and second transmitting and receiving units operate according to a short-range radio standard.

c. Larsson does teach wherein the first and second transmitting and receiving units operate according to a short-range radio standard (col. 2, lines 51-52); "short-range ... wireless standard").

d. At the time the invention was made, it would have been obvious to a person having ordinary skill in the art to have incorporated Larsson's short-haul radio standard into Cotton's terminal login method. The motivation to do so is provided by Larsson

(col. 2, line 50-62). A short-haul standard allows for operation at low transmission power which restricts the range to within a few meters and it also conserves battery life of mobile units. Using a known standard to operate a system, reduces the development cost and shortens the design time to develop a system since it allows the use of commercially available parts and software in the design.

20. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Cotton, U.S. Patent No. 6148205 [Cotton] in view of IEEE Standard 802.15.1-2002 [IEEE-802.15.1] and in further view of Larsson et al., U.S. Patent No. 6697638 [Larsson].

21. As to claim 20:

a. Cotton in view of IEEE-802.15 teaches the method according to claim 13 (as discussed above).

b. Cotton in view of IEEE-802.15 does not teach wherein the short-range radio standard comprises a Bluetooth specification.

c. Larsson does teach wherein the short-range radio standard comprises a Bluetooth specification (col. 2, line 29); "Bluetooth standard").

d. At the time the invention was made, it would have been obvious to a person having ordinary skill in the art to have incorporated Larsson's Bluetooth standard into Cotton's terminal login method. The motivation to do so is provided by Larsson (col. 2, lines 50-62). Bluetooth is a short-haul communication standard and has the advantage

of operating in unlicensed bands (2.4GHz) which reduce system development and operating costs since there are no licensing fees to pay.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Berg, U.S. Patent Application Publication No. 20040029563 discloses a cellular phone system using Bluetooth for login and control. Hill et al., U.S. Patent Application Publication No. 20040166864 discloses a Bluetooth based wireless telecommunication system with power control to minimize interference between mobile units.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DANIEL NOBILE whose telephone number is (571) 270-7695. The examiner can normally be reached on MON - THUR: 7:00AM - 4:00PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Robinson can be reached on (571) 272-2319. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/D.N./
Examiner, Art Unit 4125

/Mark A. Robinson/
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